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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,744	02/09/2004	Joseph Greg Billock		1522
34847	7590	12/12/2007		
AVAYA INC. 307 MIDDLETOWN-LINCROFT ROAD ROOM 1N-391 LINCROFT, NJ 07738			EXAMINER MAHMOOD, REZWANUL	
			ART UNIT 2164	PAPER NUMBER
			MAIL DATE 12/12/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/775,744

Applicant(s)

BILLOCK ET AL.

Examiner

Rezwanul Mahmood

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2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is 'non-final'.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-9 and 22-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-9 and 22-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in reply to the communication received on September 24, 2007.

Response to Amendment

2. Applicant's election without traverse of claims 2-9 and 22-28 in the reply filed on 09/24/2007 is acknowledged.
3. Claims 2-9 and 22-28 are pending in this office action.

Claim Objections

4. Claim 24 is objected to because of the following informalities:
5. In claim 24 lines 2, the phrase "at of least" should be "of at least".
6. Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 2-9 and 22-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Ryo (US Patent 5,519,861).
9. With respect to claim 4, Ryo discloses an apparatus for monitoring time series,

comprising:

one or more registers each for storing received data points of a corresponding time series (Ryo: Column 2, lines 58-67; Column 3, lines 1-36; Column 5 lines 1-63);

means for receiving data points of one or more time series and storing the received data points in the corresponding registers (Ryo: Column 2, lines 58-67; Column 3, lines 1-36; Column 5 lines 1-63);

means for receiving query strings representing queries (Ryo: Column 2, lines 58-67; Column 3, lines 1-36; Column 5 lines 1-63);

means for compiling the received query strings into persistent queries (Ryo: Column 2, lines 58-67; Column 3, lines 1-36; Column 5 lines 1-63);

at least one said persistent query, each defining a query represented by received said query strings, each persistent query being a function of the time series of corresponding one or more trigger registers of one or more registers (Ryo: Column 2, lines 58-67; Column 3, lines 1-36; Column 5 lines 1-63);

means, responsive of storing of a received data point in a trigger register, for evaluating each persistent query corresponding to the trigger register (Ryo: Column 2, lines 58-67; Column 3, lines 1-36; Column 5 lines 1-63); and

means for outputting a payload of each evaluated persistent query whose event condition has a first value (Ryo: Column 2, lines 58-67; Column 3, lines 1-36; Column 5 lines 1-63).

10. With respect to claim 5, Ryo discloses the apparatus of claim 4, wherein:

at least one register comprises
one or more windows each for maintaining statistics for a corresponding subset of the register's corresponding time series (Ryo: Column 2, lines 58-67; Column 3, lines 1-36; Column 5 lines 1-63); and

at least one persistent query is a function of one or more windows of the corresponding one or more trigger registers (Ryo: Column 2, lines 58-67; Column 3, lines 1-36; Column 5 lines 1-63).

11. With respect to claim 6, Ryo discloses the apparatus of claim 5 wherein:

each persistent query defines an event condition and a payload specification of the defined query, where at least one of the event condition and the payload specification is a function of the time series of the corresponding one or more trigger registers (Ryo: Column 2, lines 58-67; Column 3, lines 1-36; Column 5 lines 1-63).

12. With respect to claim 2, Ryo discloses the apparatus as recited in claim 5 further comprising:

means for dynamic management of the windows (Ryo: Column 2, lines 58-67; Column 3, lines 1-36; Column 5 lines 1-63);

13. With respect to claim 3, Ryo discloses the apparatus as recited in claim 2, further comprising:

means for using historical values in present said windows to help populate

inserted said windows (Ryo: Column 1, lines 22-30; Column 3, lines 12-36; Column 5, lines 1-63).

14. With respect to claim 7, Ryo discloses the apparatus of claim 6 wherein:
at least one of the event condition and the payload specification of at least one persistent query is a function of the statistics maintained by at least one window of at least one of the corresponding one or more trigger registers (Ryo: Column 1, lines 22-30; Column 3, lines 12-36; Column 5, lines 1-63).

15. With respect to claim 8, Ryo discloses the apparatus of claim 5 comprising:
means for performing online computation of the statistics (Ryo: Column 1, lines 22-30; Column 3, lines 12-36; Column 5, lines 1-62).

16. With respect to claim 9, Ryo discloses the apparatus of claim 4 comprising:
means for dynamic management of persistent queries (Ryo: Column 3, lines 12-36; Column 5, lines 38-46).

17. With respect to claim 22, Ryo discloses a method of monitoring time series, comprising:
receiving query strings representing a query (Ryo: Column 3, lines 12-36; Column 4, lines 3-17; Column 5, lines 38-46; Column 8, lines 2-6);
compiling from the received strings a persistent query defining the represented

query as a function of one or more time series (Ryo: Column 3, lines 12-36; Column 4, lines 3-17; Column 5, lines 38-46; Column 8, lines 2-6);

receiving data points of the one or more time series (Ryo: Column 3, lines 12-36; Column 5, lines 38-46);

storing the received data points each in a register for storing received data points of a corresponding one or the one or more time series (Ryo: Column 3, lines 12-36; Column 5, lines 38-46);

in response to storing of a received data point in a register, using contents of the register to evaluate each persistent query that is a function of the register's corresponding time series (Ryo: Column 3, lines 12-36; Column 5, lines 38-46); and

outputting a payload of each evaluated persistent query whose even condition has a first value (Ryo: Column 3, lines 12-36; Column 5, lines 38-46).

18. With respect to claim 23, Ryo discloses the method of claim 22 wherein:

storing the received data points comprises

updating statistics of any windows of the register that store the received data points to account for the stored data points, wherein at least one register comprises one or more said windows each for maintaining the statistics for a corresponding subset of the register's corresponding time series (Ryo: Column 2, lines 58-67; Column 3, lines 1-36; Column 5 lines 1-63); and

using contents of the register comprises

using contents of at least one or the one or more windows of the register to

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evaluate each persistent query that is a function of the register's corresponding time series (Ryo: Column 2, lines 58-67; Column 3, lines 1-36; Column 5 lines 1-63).

19. With respect to claim 24, Ryo discloses the method of claim 23 wherein:
using contents of at least one or the one or more windows comprises
using contents of the at least one window to evaluate at least one of an event condition and a payload specification of the persistent query, where the at least one of the event condition and the payload specification is a function of the register's corresponding time series (Ryo: Column 2, lines 58-67; Column 3, lines 1-36; Column 5 lines 1-63).

20. With respect to claim 25, Ryo discloses the method of claim 23 wherein:
updating statistics comprises
performing online computation of the statistics (Ryo: Column 1, lines 22-30; Column 3, lines 12-36; Column 5, lines 1-62).

21. With respect to claim 26, Ryo discloses the method of claim 22 further comprising:
dynamically managing the persistent queries (Ryo: Column 3, lines 12-36; Column 5, lines 38-46).

22. With respect to claim 27, Ryo discloses the method of claim 23 further

comprising:

dynamically managing the windows (Ryo: Column 3, lines 12-36; Column 5, lines 38-46).

23. With respect to claim 28, Ryo discloses the method of claim 27 further comprising:

using historical values in present said windows to help populate inserted said windows (Ryo: Column 3, lines 12-36; Column 5, lines 38-46).

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Mitra reference (US Patent 6,654,485) teaches about monitoring time series. The Becker reference (US Patent 5,462,438) teaches about displaying multiple times series. The Trayford reference (US Publication 2004/0038671) teaches about analyzing time series and historical values to generate traffic related information.

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Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rezwanul Mahmood whose telephone number is (571)272-5625. The examiner can normally be reached on M - F 10 A.M. - 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571)272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rezwanul Mahmood
Examiner
Art Unit 2164

December 8, 2007



CHARLES RONES
SUPERVISORY PATENT EXAMINER